

## Optical Passives for HFC & FTTx Solutions

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- Full Line of Optical Passives and Accessories
- Optical Splitters
- WDM/CWDM/DWDM
- Dispersion Compensation Module (DCM)
- ITU G.694 standard compliant
- Excellent Wavelength Stability
- Cost Effective Solution
- High Port Isolation
- Low Insertion Loss
- Flexibility for Customization



ACT offers a complete line of Optical Splitters, DWDMs, CWDMs, OADM, DCM, Optical Shelf, Rack Cabinet, Indoor 19" Rack and Outdoor Splice Enclosure with difference accessories. The optical passive splitters feature low insertion loss, high isolation and easier field installation in FTTx Network deployment

The CWDM/DWDMs are designed to multiplex (mux) or de-multiplex (demux) optical signals in full optical spectrum with CWDM/DWDM multiple channels at an ITU standards ITU-T defined spacing. It comes as different form factor packages, 1RU 19" rack-mount chassis, standard LGX modules or flat box assemblies.

ACT also developed special range of optical passive packaging which are suitable for HFC, FTTx (P2P, P2MP), RFOG (Radio Frequency over Glass) applications, permitting DOCSIS and HFC to operate over a EPON/GPON compliant Passive Optical Network (PON) as commonly deployed for Fibre to the Home (FTTH) developments solution in high density FTTX networks to bring the video services to business and home premises.

## Overview

**SC/APC Fiber Optic Fast Connector** is a new generation of fiber connector designed for FTTH application. It provides Open flow and Pre-cast features, while maintaining the standard optical fiber connector optical and mechanical specifications.

It is designed for high quality and high efficiency installation. The unique structure of crimping position requires no gluing, polishing or any other separate parts. Suitable for fiber pre-installed network structure, and convenient field installation.

## Features

- Precise mechanical dimensions
- Low insertion loss, high return loss
- Comply standard of IEC61754-4
- Repeatable times no less than 50 times
- Long life span design over 30 years

## Applications

- Premise environment
- Connections at the desk for LAN environments
- Patch panels
- Direct equipment termination
- Fiber to the Subscriber (FTTH) applications
- Repair/replacement requirements
- Equipment test leads



## Specifications

Type	Specification
Optical Fiber Diameter	125 $\mu\text{m}$ (6571A1 & 657A2)
Tight Buffer Diameter	250 $\mu\text{m}$
Fiber Mode	Single-mode
Operation Time	About 60 s (no fiber cutting)
Insertion Loss	$\leq 0.3$ dB (1310 nm & 1550 nm)
Return Loss	$\geq 50$ dB
Bare Fiber Fastening Strength	$> 5$ N
Bare Fiber Holder Fastening Strength	$> 10$ N
Tensile Strength	$> 40$ N
Operating Temperature	$-40$ $^{\circ}\text{C}$ to $+75$ $^{\circ}\text{C}$
On-Line Tensile Strength (20 N)	$\Delta\text{IL} \leq 0.3$ dB $\Delta\text{RL} \leq 5$ dB
Mechanical Durability (500 Cycles)	$\Delta\text{IL} \leq 0.3$ dB $\Delta\text{RL} \leq 5$ dB
Drop-Off Test <sup>1</sup>	$\Delta\text{IL} \leq 0.3$ dB $\Delta\text{RL} \leq 5$ dB

<sup>1</sup> Drop-off height 4 m, once per direction, 3 times total

## Overview

**SC/UPC Fiber Optic Fast Connector** is a new generation of fiber connector designed for FTTH application. It provides Open flow and Pre-cast features, while maintaining the standard optical fiber connector optical and mechanical specifications.

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**Tight Buffer Diameter**

**Fiber Mode**

**Operation Time**

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**On-Line Tensile Strength (20 N)**

**Mechanical Durability (500 Cycles)**

**Drop-Off Test<sup>1</sup>**

### Specification

125  $\mu\text{m}$  (6571A1 & 657A2)

250  $\mu\text{m}$

Single-mode

About 60 s (no fiber cutting)

$\leq 0.3$  dB (1310 nm & 1550 nm)

$\leq -40$  dB

$> 5$  N

$> 10$  N

$> 50$  N

$-40$  °C to  $+75$  °C

$\Delta\text{IL} \leq 0.5$  dB  $\Delta\text{RL} \leq 5$  dB

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<sup>1</sup> Drop-off height 4 m, once per direction, 3 times total

## Ordering Information

Item	Description
AOP-AFC-AS	Optical Fast Connector SC/APC
AOP-AFC-US	Optical Fast Connector SC/UPC

Contact ACT for the complete CWDM/DWDM/WDM/Optical Splitter offerings and other accessories.

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Ver. ACT\_Optical\_Passive\_Fast\_Conn\_V1h\_Dec\_2015